**APA079Mu61 10μg**
**Active Interleukin 6 (IL6)**
**Organism Species: Mus musculus (Mouse)**
***Instruction manual***

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

# [ PROPERTIES ]

**Source:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Phe25~Thr211

**Tags:** N-terminal His-tag

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1μg (determined by the LAL method).

**Buffer Formulation:** 10mM PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl.

**Applications:** Cell culture; Activity Assays; In vivo assays.
(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 6.5

**Predicted Molecular Mass:** 23.3kDa

**Accurate Molecular Mass:** 26-33kDa as determined by SDS-PAGE reducing conditions.

**Phenomenon explanation:**

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## [ USAGE ]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## [ STORAGE AND STABILITY ]

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed.The loss rate is less than 5% within the expiration date under appropriate storage condition.

## [ SEQUENCE ]

FPTSQV RRGDFTEDTT PNRPVYTTSQ
VGGLITHVLW EIVEMRKELC NGNSDCMNND DALAENNLKL PEIQRNDGCY
QTGYNQEICL LKISSGLLEY HSYLEYMKNN LKDNKKDKAR VLQRDTETLI
HIFNQEVKDL HKIVLPTPIS NALLTDKLES QKEWLRTKTI QFILKSLEEF
LKVTLRSTRQ T

## [ ACTIVITY ]

Interleukin-6 (IL-6), a pro-inflammatory cytokine and an anti-inflammatory myokine, plays important roles in the acute phase reaction, inflammation, hematopoiesis, bone metabolism, and cancer progression. It has been reported that IL6 induces C-reactive protein (CRP) expression through the STAT3 pathway in HepG2 cells. To test this effect, HepG2 cells were seeded overnight at a density of $1x10^5$ cells/mL, and treated with or without various concentrations of IL6 for 24h and CRP levels in the cell supernatant were determined by ELISA.

CRP levels in the cell supernatant of HepG2 cells increased significantly after stimulated with IL6, the data was shown in Table 1 and Figure 1.

| Sample (cell supernatant of HepG2 cells) | O.D. value | Corrected | Concentration of CRP (ng/mL) |
|---|---|---|---|
| stimulated with IL6 (10ng/mL) | 0.514 | 0.453 | 1.61 |
| stimulated with IL6 (30ng/mL) | 0.396 | 0.335 | 1.13 |
| unstimulated | 0.128 | 0.067 | 0.03 |

**Table 1. CRP levels in the cell supernatant of HepG2 cells regulated by IL6.**

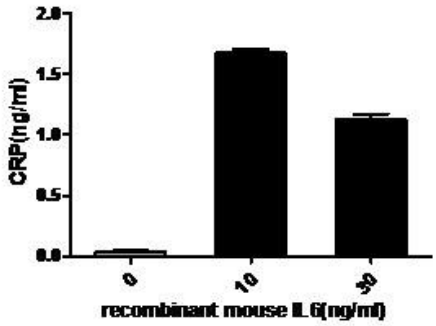


**Figure 1. CRP levels in the cell supernatant of HepG2 cells regulated by IL6.**

# [ IDENTIFICATION ]

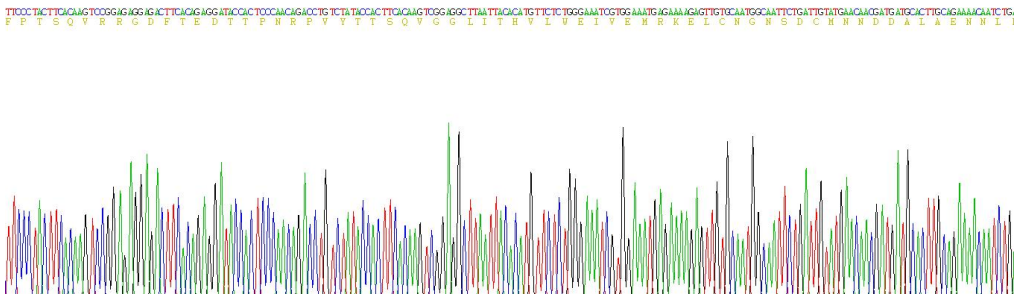

**Figure 2. Gene Sequencing (extract)**

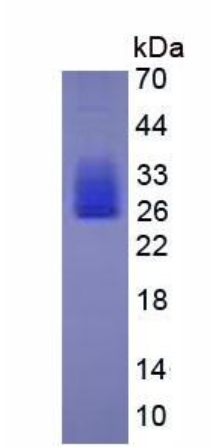


**Figure 3. SDS-PAGE**

**Sample: Active recombinant IL6, Mouse**

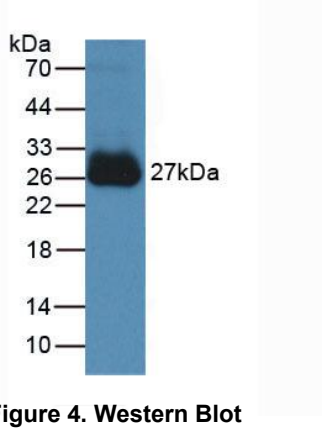


**Figure 4. Western Blot**

**Sample: Recombinant IL6, Mouse;**

**Antibody: Rabbit Anti-Mouse IL6 Ab (PAA079Mu06)**

## [ IMPORTANT NOTE ]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.